	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

STATE OF RHODE ISLAND SMALLPOX PREVENTION AND CONTROL PLAN

TABLE OF CONTENTS

PART SUBJECT

- I. PURPOSE
- II. SITUATION AND ASSUMPTIONS
- III. CONCEPT OF OPERATIONS
- IV. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES
- V. ADMINISTRATION AND LOGISTICS
- VI. PLAN DEVELOPMENT AND MAINTENANCE
- VII. AUTHORITY AND REFERENCES

ATTACHMENTS:

A- PRE-EVENT VACCINATION PLAN

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

I. PURPOSE

This document, in conjunction with the Centers for Disease Control and Prevention's (CDC's) Interim Smallpox Response Plan and Guidelines (Attachment A), will guide Rhode Island's response to a smallpox outbreak.

II. SITUATION AND ASSUMPTIONS

A. Situation

This plan addresses the threat of a smallpox outbreak in Rhode Island. Smallpox is a serious viral infection transmitted from human to human. No human cases have been reported since 1978, when a World Health Organization (WHO) program curbed the last known smallpox outbreak, but the smallpox virus itself was preserved in at least four research laboratories around the world. Since that time, supplies of the virus may have fallen into the hands of terrorists for use as a biological weapon of mass destruction.

Smallpox is preventable with vaccination. The traditional smallpox vaccine contains live virus (Vaccinia). It confers effective immunity for 10-12 years, but may have serious side effects, especially among people who are immune-compromised or report a history of atopic dermatitis (the latter represent about 20 percent of the adult population in the United States). The federal government controls the production, storage, and distribution of smallpox vaccine in the United States. At present, limited stocks of licensed vaccine are available for immediate use, and these will be allocated to the U.S. military and to the separate states and territories at the close of 2002. Initial vaccine shipments to states and territories are intended for volunteers prepared and organized to control smallpox outbreaks, including health care workers, public health workers, and public safety workers. Eventually, sufficient vaccine will be produced and licensed to vaccinate the general public.

Few health care providers in practice today have used smallpox vaccine, and fewer still have ever seen, much less treated a case of smallpox. In the past, the state ran several smallpox hospitals for quarantining persons with diseases such as smallpox and tuberculosis, but with the elimination of smallpox, the effective prevention of childhood infectious diseases, and the development of modern antibiotics and antivirals, these hospitals were sold, closed, or converted to other uses.

B. Overview

1. The Disease

Smallpox (Variola) is a contagious disease spread person to person. The smallpox virus is usually spread in heavy droplets that do not travel more than six feet, on average, although virus particles have been known to

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

become aerosolized and to travel longer distances through air-handling (HVAC) systems. After settling on environmental surfaces, the virus can survive for short lengths of time (hours or days), depending on environmental factors. Contaminated bedding and clothing have been proven to be sources of infection. People exposed to the virus may abort infection by receiving smallpox vaccine within four days of initial exposure, if their immune systems respond normally to the vaccine. Vaccination may also be useful after this initial post-exposure period to lessen the severity of infection. People who are infected become contagious about 12 days following initial exposure (average) when they develop the characteristic smallpox rash. Prior to rash development, patients experience fever and prostration. By the time they develop the characteristic rash and become infectious, they usually feel sick enough to limit activities, thus person to person contact. After development of the characteristic rash, people remain infectious until the last smallpox scab falls off, usually within three to four weeks.

2. The Vaccine

Smallpox vaccine contains a live virus called Vaccinia. The process of vaccination involves placing a small droplet of the vaccine on the skin and piercing the skin 15 times with a small bifurcated needle. Within about four days a small lesion usually appears at the site of vaccination, followed by scabbing over. Monitoring this process is essential to assure good "vaccine take." Some people do not develop the characteristic Vaccinia lesion for various reasons, including improper administration of the vaccine. A Vaccinia lesion is infectious until the scab falls off naturally (about three weeks post-vaccination). The lesion (and scab) must be covered with a sterile dressing, changed regularly and disposed of carefully, to avoid secondary infection of the person who has been vaccinated and of other persons who may come in contact with the person who has been vaccinated. Good hygiene, especially thorough hand washing, is also essential to avoid secondary Vaccinia infection. A weak immune system, a history of atopic dermatitis, and pregnancy are contraindications for receipt of the vaccine. If any of these conditions exists, a person who receives live Vaccinia virus (or a fetus being carried in the womb) may develop multiple Vaccinia lesions or a life-threatening, progressive Vaccinia infection. (Past experience demonstrates that about 1 per 1,000,000 recipients of vaccine die of progressive Vaccinia.) Administering Vaccinia Immune Globulin (VIG) may attenuate smallpox vaccine reactions. The latter is produced from the blood of individuals who have been vaccinated recently, and is therefore in very short supply at present in the United States. The human body usually mounts a quick, robust immune response to Vaccinia. Use of the vaccine within four days

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

of initial exposure to smallpox will abort clinical symptoms of the latter. However, relying on post-exposure vaccination to abort smallpox infections is risky, because some people do not experience a normal (robust) immune response to Vaccinia ("vaccine take").

3. Vaccination Policy

From 1971 until mid-2002, smallpox vaccine was not used in the United States, because the risk of its side effects clearly outweighed the risk of contracting smallpox. By 1971, the risk of contracting smallpox in the United States was almost nil, and by 1978, the last known case of smallpox had been recorded. Since then, there have been no cases observed anywhere in the world. At present, the risk that smallpox may be reintroduced to the human population as a weapon of terror has increased to the point that it appears to be prudent to begin vaccinating in the United States again. However, because the risk of Vaccinia, the live virus used in smallpox vaccine, is real, while the risk of smallpox is only theoretical, vaccination must be voluntary, and no one with contraindications to the use of the vaccine should receive it. Thus, no person infected with HIV, no person who is being treated with immunosuppressive drugs, no person with a history of atopic dermatitis, and no woman who is pregnant should receive smallpox vaccine as it is currently manufactured (containing live Vaccinia virus). If exposure to smallpox is imminent, the risk/benefit ratio of smallpox vaccine shifts, because infection with smallpox is much riskier than infection with Vaccinia, and practically everyone who is not immune to smallpox should receive the vaccine, with heightened monitoring for vaccine side effects among individuals with contraindications to the use of the vaccine.

4. Current Readiness

Rhode Island's health care system has not encountered a case of smallpox within the memory of any practicing physician or nurse in the state. Most health care providers have had no experience with the handling and administration of smallpox vaccine, last used in the United States in 1971. The state no longer has an operating smallpox hospital, and none of the 11 operating acute care hospitals in the state have been designed to treat smallpox patients safely, despite the existence of negative pressure rooms for the isolation of infectious patients. No one in the state is believed to be immune to smallpox at present, and there are no stores of either smallpox vaccine or VIG in the state. Both are controlled centrally by the federal government.

C. Assumptions

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

1. Pre-Outbreak Vaccination

- a. The federal government is directing the states to vaccinate a strategic reserve of health care workers, public health workers, and public safety workers prepared and organized to control smallpox outbreaks. The states will begin receiving vaccine for this purpose at the close of 2002. Although individual states are developing specific vaccination plans, all will have to conform in some fashion to federal guidelines for vaccination and to some extent with one another's plans, to avoid public anxiety.
- b. The vaccine received from the federal government for this purpose will be licensed by the federal government.
- c. Licensed vaccine is currently in short supply, so it will be allocated to the states. Rhode Island's first installment of vaccine will include approximately 1200 doses. After a period of time the state will receive further installments of vaccine.
- d. After all health care workers, public health workers, and public safety workers are vaccinated, further installments of vaccine will be made available to the general public.
- e. The licensed vaccine to be received by the state is a live vaccine capable of causing severe side effects in some people and also of causing secondary infections. For these reasons and because the threat of smallpox infection is currently zero, vaccination for smallpox in the United States will be strictly voluntary, will have to proceed very carefully to avoid doing harm to those who receive the vaccine, and ultimately, may attract few volunteers.
- f. To minimize harmful side effects and to maximize the number of volunteers, the state must organize a vaccination program that is deliberate, well controlled, and of very high quality.
- g. Because smallpox vaccine has not been used to vaccinate members of the general public in the United States since 1971, most people including health care professionals know little about the vaccine, its benefits and risks, and its administration. For these reasons any smallpox vaccination program must be preceded and coordinated with an educational program for those who will receive the vaccine, for those who will administer the vaccine, and for the general public.

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

- h. The mass media have been very helpful in getting information about vaccines and vaccination programs out to the general public. In our state, the public health community and the mass media have learned to work cooperatively in times of emergency to get timely information to the public at large. However, any vaccination program in the state will be conducted in parallel with vaccination programs throughout the country, and the media will have a rich source of information and experience upon which to draw in crafting stories for print and broadcast media. The Rhode Island Department of Health (HEALTH) must be prepared not only for explaining the details of our own vaccination program to the general public, but also differences between our vaccination program and vaccination programs around the country. Most importantly, even though HEALTH will run a vaccination program in this state that will avoid many of the risks associated with smallpox vaccine, HEALTH must be prepared to explain not only the adverse side effects of vaccine use in our own state, but also adverse events that may occur elsewhere. The latter as well as the former will raise public concerns in Rhode Island.
- i. To ensure maximum "vaccine take," minimum vaccine side effects, and the greatest number of volunteers, the early phases of the state's vaccination program (focusing on health care workers, public health workers, and public safety workers) will be centralized and tightly controlled. When the state and its health care providers become familiarized with the use of smallpox vaccine, and when sufficient vaccine is received in the state to begin vaccinating the general public, the vaccination program will transition to a phase in which vaccine is administered to members of the general public by primary care providers as part of regular preventive health visits.

2. <u>Control of Smallpox Outbreaks</u>

- a. Smallpox control strategies are contingent upon the proportion of the population immune to smallpox. As this plan is written it is assumed that no one in the state is immune to smallpox.
- b. Smallpox is a viral "droplet infection," spread from person-toperson in close contact with one another. However, droplets may become aerosolized and travel long distances in air handling systems.

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

- c. From past experience, largely with third world populations, the case fatality rate of smallpox is believed to be about 30%. The case fatality rate is higher among people with undeveloped or weak immune systems, such as infants, elders, people infected with HIV, and people receiving immunosuppressive drugs (such as organ transplant patients and persons suffering from autoimmune disorders).
- d. Smallpox can spread rapidly from person-to-person in hospitals and in nursing homes where high proportions of the population are weakened by illness. At the first sign of smallpox in the world HEALTH must protect these vulnerable populations by limiting access to hospitals and nursing homes.
- It is problematic to treat smallpox patients in the state's acute-care e. hospitals for a number of reasons. First, doing so will risk transmitting the disease to other patients in the hospitals. Second, at present no one in acute-care hospitals has any experience in the treatment of smallpox patients. Third, the typical length of stay of a smallpox patient (two to three weeks) will quickly tax the state's acute care bed capacity if many people contracted the disease. Removing smallpox patients from acute-care hospitals as quickly as possible is essential to protect other patients and staff. Concentrating smallpox patients in a specialized smallpox hospital activated for this purpose will not only protect acute-care hospitals and the state, but also will improve the learning curve of professionals caring for these patients. Nonetheless, smallpox victims will present at acute-care hospitals, which must be prepared to identify smallpox rapidly, to isolate smallpox victims, to notify the state of this fact, and to prepare smallpox victims for transport to an smallpox hospital.
- f. To minimize the risk of disease transmission associated with patient transport, smallpox patients should be transported by a specialized transport system staffed by vaccinated emergency medical technicians (EMTs) and dispatched centrally by the state.
- g. To limit the spread of smallpox in the state, HEALTH will undertake a two-pronged strategy to vaccinate the population. HEALTH will rapidly identify and vaccinate all people who had been exposed to smallpox. Simultaneously, HEALTH will undertake mass vaccination of all people in the state, beginning with health care workers, public health workers, and public safety workers who had not yet been vaccinated. Mass vaccination will

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

have to accommodate all segments of the population very quickly (within 10 days) while minimizing the public's exposure to disease. For this reason, HEALTH will activate Rhode Island's National Pharmaceutical Stockpile (NPS) distribution plan, which is designed to get medications such as smallpox vaccine to members of the general public through municipal clinics activated for this purpose.

3. Public Health Leadership during Smallpox Outbreaks

- a. Just one case of smallpox, occurring anywhere in the world, will cause an immediate and unpredictable international reaction, well beyond the power of any local, state, or national government to control. Public panic will be immediate, intense, and widespread.
- b. The case will be followed by others in short order. Despite our ability to control the disease, it will take months to contain its spread. If it were to spread to populations in multiple developing countries, it will take years, possibly decades, to contain, after causing widespread mortality and disastrous economic effects.
- c. The last known case of smallpox in the world occurred in 1978. Were the first new case to occur in Rhode Island, the state will become populated overnight with agents of the United States government, and swamped with members of the news media. A similar invasion will follow the identification of any first-generation case in the state, as federal agents and press, alike, scrambled to uncover the original source of the outbreak and other related subjects of concern.
- d. Public anxiety will quickly become near impossible to control.

 Nothing HEALTH has experienced in the past will even vaguely resemble the challenge of communicating with the public during the early days of a smallpox outbreak.
- e. Even if one of the first smallpox cases did not occur in Rhode Island, the state will have to respond to the threat of second-generation and later cases occurring within its borders. It will have to cope with public anxiety, and will have to be extremely vigilant for an outbreak here. It will have to coordinate efforts with bordering jurisdictions and might feel substantial "border" effects were a smallpox outbreak to occur in Connecticut or Massachusetts. (For example, unexposed hospital and nursing home patients might be transferred to Rhode Island, thus straining

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

our limited bed capacity, if such beds in neighboring states were to be used for smallpox victims.)

- f. Strong, unwavering leadership is essential to mount an effective, comprehensive response to smallpox. The State of Rhode Island must decide now, before an outbreak, who is going to lead. The public must perceive solidarity of leadership.
- g. The Director of Health, backed unequivocally by the Governor and the General Assembly, and supported by the courts, the Emergency Management Agency (EMA), health care providers, and health care institutions, is best positioned under state law to lead the response.
- h. The response to smallpox is complex, and will require the Director to work through a tightly knit team of key staffers to whom she has delegated authority, as well as a group of essential community-based leaders.

III. CONCEPT OF OPERATIONS

A. Goals

- 1. <u>Pre-Outbreak Vaccination</u>: Vaccinate health care workers, public health workers, public safety workers, and the general public in phases as licensed smallpox vaccine is made available to the state by the federal government.
 - a. <u>Phase 1</u>: Centralized vaccination of health care workers, public health workers, and public safety workers in a state-run vaccine clinic to maximize vaccine take, to minimize vaccine side effects, to provide vaccination liability coverage, and to provide full-spectrum training in the use of smallpox vaccine for health care professionals.
 - b. <u>Phase 2</u>: [Contingent upon federal policy governing the release and use of smallpox vaccine in the United States] Decentralized vaccination of other adults and children to normalize the use of smallpox vaccine by the medical profession as an integral component of regular preventive care.
- 2. <u>Control of Smallpox Outbreaks</u>: Prevent smallpox transmission by educating the public, by rapidly identifying, isolating, and treating

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

smallpox cases, by identifying, vaccinating, and tracking people exposed to smallpox ("contacts"), and by conducting mass vaccination clinics.

3. <u>Public Health Leadership during Smallpox Outbreaks</u>: Prevent public panic with strong, visible, and unambiguous leadership, high-profile prevention and control efforts, and public education.

B. Execution

- 1. <u>Immediate Preparation</u>: Under the leadership of HEALTH, the State of Rhode Island will prepare for a smallpox outbreak by planning, by training and vaccinating key personnel throughout the state (a "strategic reserve" of public health, public safety, and health personnel), by developing the capability of opening an smallpox hospital, by educating health care providers, and by working with health care facilities to ready their responses to a smallpox outbreak. As sufficient vaccine becomes available, the state will oversee a general vaccination program for members of the public, in collaboration with over 1500 primary health care providers.
- 2. Response to a Smallpox Outbreak Out-of-State: If a case of smallpox were to occur anywhere in the world, HEALTH will convene a state smallpox response team, including HEALTH staff and representatives of key community agencies. HEALTH will activate NPS mass vaccination clinics throughout the state, initiate intense, active surveillance for smallpox cases, prepare to open an smallpox hospital (in collaboration with the Rhode Island Department of Mental Health, Retardation, and Hospitals -MHRH), and ready a dedicated transport system for smallpox victims. Hospitals and nursing homes will restrict access to their campuses, and will activate plans for rapid identification, isolation, diagnosis, case reporting, and transport (by HEALTH) of smallpox cases. HEALTH will work with mass media channels to inform the public about smallpox, its prevention and control, and mass vaccination clinics. HEALTH will use a number of information channels to keep medical care providers up-to-date on the location of smallpox cases, the state's prevention and control activities, and the roles of health care providers in this process.
- 3. <u>Response to a Smallpox Outbreak In-State</u>: If a case of smallpox were to occur in Rhode Island, HEALTH will declare a smallpox emergency, from which the following will ensue:
 - a. <u>Overview</u>: HEALTH will convene a state smallpox response team, including HEALTH staff and representatives of key community agencies. HEALTH will activate NPS mass vaccination clinics

	State of RI Emergency Operations Plan
Appendix _	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

throughout the state, initiate intense, active surveillance and investigation of smallpox cases (including the identification, vaccination, and management of persons exposed to smallpox), activate an smallpox hospital, and activate a dedicated transport system for smallpox victims. Hospitals and nursing homes will restrict access to their campuses, and will activate plans for rapid identification, isolation, diagnosis, case reporting, and transport (by HEALTH) of smallpox cases. HEALTH will maintain regular, ongoing communications with hospitals in the state. HEALTH will work with mass media channels to inform the public about smallpox, its prevention and control, and mass vaccination clinics. HEALTH will use a number of information channels to keep medical care providers up-to-date on the location of smallpox cases, the state's prevention and control activities, and the roles of health care providers in this process.

- b. Receipt of vaccine: EMA will receive, secure, and transfer NPS shipments to HEALTH, including smallpox vaccine and VIG. NPS will ship smallpox vaccine and VIG in portable refrigerators, facilitating storage anywhere. Vaccine must be stored and transported under armed guard. For this purpose, HEALTH will secure the services of police or military personnel trained to deal with crowds and mob violence.
- c. <u>Activation of mass vaccination clinics</u>: In collaboration with municipalities, HEALTH will activate mass smallpox vaccination clinics for all members of the public, following its NPS distribution plan.
- d. Active surveillance with aggressive investigation of cases:
 HEALTH will initiate intense, active surveillance of smallpox in collaboration with hospitals and other major health care institutions in the state. Epidemiology teams from HEALTH will investigate the source of every smallpox case, and aggressively identify, vaccinate, and track all persons exposed to smallpox cases.
- e. Activation of a smallpox care system: HEALTH will authorize the activation of a smallpox care system in stages, starting with activation of a 100-bed smallpox hospital to be operated by MHRH, using prevaccinated personnel from hospitals in the state. The smallpox hospital will care for smallpox patients and patients suspected of developing smallpox (people who have been exposed to smallpox and who appear to be developing prodromal symptoms). If the patient census of the smallpox hospital

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

approaches its 100-bed capacity (indicative of a major smallpox outbreak), HEALTH will expand the state's smallpox care system with an independent "front door" nursing facility for the observation and care of suspected smallpox cases, and/or an independent "back door" nursing facility for the care of patients with mild smallpox infections and patients who are recuperating from smallpox, but who are still infectious. HEALTH will secure nursing capacity for this purpose on an as-needed basis from the state's nursing home industry.

- f. <u>Activation of dedicated transport of smallpox patients</u>: HEALTH will activate an emergency smallpox transport plan for moving smallpox patients from one location to another.
- g. Restricted access to hospitals and nursing homes: Hospitals and nursing homes will restrict access to their campuses, and will ready themselves to assure the rapid identification, isolation, diagnosis, case reporting, and transport (by HEALTH) of smallpox cases.
- h. <u>Length of operation</u>: It is anticipated that this operation will be conducted for months, depending on the nature of the outbreak.

IV. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES

A. Immediate Preparation

1. HEALTH

- a. Pre-outbreak vaccination: Plan to vaccinate a strategic reserve of health care workers, public health workers, and public safety workers. Develop a smallpox vaccine clinic for the state. Receive and secure smallpox vaccine from the federal government as it is made available to us. Vaccinate the strategic reserve in the smallpox vaccine clinic. Contingent upon federal policy governing the release and use of smallpox vaccine in the United States, plan to vaccinate the general public after health care workers, public health workers, and public safety workers have been vaccinated. Train primary health care providers to vaccinate members of the general public as part of regular preventive health visits. Prepare to distribute vaccine to primary health care providers as it becomes available for use with the general public.
- b. <u>Disease surveillance</u>: Organize "active surveillance" of smallpox in collaboration with hospitals and other major health care

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

institutions in the state. Train epidemiology response teams to investigate the sources of smallpox cases and to identify, vaccinate, and track all persons exposed to smallpox cases.

- c. <u>Smallpox care system</u>: Organize a smallpox care system, including a 100-bed smallpox hospital to be operated by MHRH, and independent nursing facilities to relieve the hospital's patient census during a major smallpox outbreak.
- d. <u>Smallpox transport system</u>: Organize a smallpox transport system for the state. Develop contracts with agencies skilled in patient transport. Vaccinate transport workers responsible for staffing this system.
- e. <u>Smallpox education</u>: Develop and field a comprehensive smallpox education campaign for health care workers, public health workers, public safety workers, and the general public.
- f. Assurance of hospital and nursing home readiness: Evaluate the plans of hospitals and nursing homes in the state to address a smallpox emergency. Assess their readiness to limit access to patients, to heighten security, to vaccinate staff and patients postevent, to recognize, isolate, diagnose, and report (to HEALTH) smallpox cases, and to ready such patients for transport.
- g. <u>Public information</u>: Prepare to collaborate with the mass media to keep the public fully informed during a smallpox outbreak.

2. MHRH

- a. <u>Smallpox hospital</u>: Plan to operate a 100-bed smallpox hospital. Develop an inventory of equipment and supplies for use in the hospital. Develop a staff roster to be filled by hospitals in the state. (HEALTH will vaccinate hospital workers who are designated to work in the smallpox hospital.) Develop a security plan for the smallpox hospital.
- 3. Hospitals, Nursing Homes, and Other Health Care Facilities
 - a. <u>Access and security</u>: Plan to limit access to patients and to heighten security in case of a smallpox outbreak.
 - b. <u>Pre-outbreak vaccination of staff (hospitals only)</u>: Educate, recruit, and schedule personnel volunteers for pre-outbreak vaccination.

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

Include sufficient numbers of personnel to staff three smallpox teams:

- i. <u>Vaccination team</u>: Ready to vaccinate staff and patients in case of a smallpox outbreak
- ii. <u>Isolation team</u>: Ready (three shifts) to identify, isolate, and diagnosis smallpox cases, and to ready such patients for transport by HEALTH
- iii. <u>Smallpox hospital team</u>: Ready to serve as staff in the state smallpox hospital at the request of HEALTH
- c. <u>Post-outbreak vaccination</u>: Prepare to vaccinate all staff and patients in case of a smallpox outbreak.
- d. <u>Surveillance and reporting</u>: Prepare to recognize, isolate, diagnose, and report (to HEALTH) smallpox cases, and to ready such patients for transport.
- e. <u>Staff education</u>: Organize staff to attend smallpox education sessions sponsored by HEALTH.

4. Public Safety Agencies (Police, Fire, EMS)

- a. <u>Access and security</u>: Plan to limit access to buildings and vehicles and to heighten security in case of a smallpox outbreak.
- b. <u>Pre-outbreak vaccination of staff</u>: Recruit personnel volunteers for pre-outbreak vaccination.
- c. <u>Post-outbreak vaccination</u>: Prepare to participate in mass vaccination clinics under the NPS plan.
- d. <u>Staff education</u>: Organize staff to attend smallpox education sessions sponsored by HEALTH.

B. Response to a Smallpox Outbreak Out-of-State

1. HEALTH

a. <u>Leadership and coordination</u>: Convene the state smallpox response team, including HEALTH staff and representatives of key community agencies.

	State of RI Emergency Operations Plan
Appendix _	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex ,

- b. <u>Post-outbreak vaccination</u>: Activate the NPS Plan. Receive and secure smallpox vaccine from the federal government as it is made available to us. In collaboration with municipalities, open mass vaccination clinics for the general public.
- c. <u>Smallpox care system</u>: Ready a smallpox care system, including a 100-bed smallpox hospital to be operated by MHRH, and independent nursing facilities to relieve the hospital's patient census during a major smallpox outbreak.
- d. <u>Disease surveillance</u>: Activate "active surveillance" of smallpox in collaboration with hospitals and other major health care institutions in the state. Ready epidemiology response teams to investigate the sources of smallpox cases and to identify, vaccinate, and track all persons exposed to smallpox cases.
- e. <u>Smallpox transport system</u>: Ready the smallpox transport system for the state.
- f. <u>Smallpox education</u>: Complete the ongoing smallpox education campaign for health care workers, public health workers, public safety workers, and the general public.
- g. <u>Assurance of hospital and nursing home readiness</u>: Request that hospitals and nursing homes activate plans to limit access to patients, to heighten security, to vaccinate staff and patients, to recognize, isolate, diagnose, and report (to HEALTH) smallpox cases, and to ready such patients for transport.
- h. <u>Public information</u>: Collaborate with the mass media to keep the public fully informed about how state and federal governments are addressing the threat of smallpox.

2. MHRH

- a. <u>Smallpox hospital</u>: Ready a 100-bed smallpox hospital. Check inventory of equipment and supplies for use in the hospital. Ready the staff roster from personnel to be supplied by hospitals in the state. Ready the security plan for the smallpox hospital.
- 3. Hospitals, Nursing Homes, and Other Health Care Facilities
 - a. Access and security: Limit access to patients and heighten security.

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

- b. Post-outbreak vaccination: Vaccinate all staff and patients.
- c. <u>Surveillance</u>: Activate plans to recognize, isolate, diagnose, and report (to HEALTH) smallpox cases, and to ready such patients for transport.
- d. <u>Staff information</u>: Maintain an active dialogue with all staff to keep them fully informed of the situation.

4. Public Safety Agencies (Police, Fire, EMS)

- a. <u>Access and security</u>: Limit access to buildings and vehicles and heighten security.
- b. <u>Post-outbreak vaccination</u>: Participate in mass vaccination clinics under the NPS plan.
- c. <u>Staff information</u>: Maintain an active dialogue with all staff to keep them fully informed of the situation.

C. Response to a Smallpox Outbreak In-State

1. HEALTH

- a. <u>Leadership and coordination</u>: Convene the state smallpox response team, including HEALTH staff and representatives of key community agencies.
- b. <u>Post-outbreak vaccination</u>: Activate the NPS Plan. Receive and secure smallpox vaccine from the federal government as it is made available to us. In collaboration with municipalities, open mass vaccination clinics for the general public.
- c. <u>Smallpox care system</u>: Activate a smallpox care system, including a 100-bed smallpox hospital to be operated by MHRH. If the hospital's patient census approaches capacity, activate independent nursing facilities to relieve the hospital's census by admitting selected patients.
- d. <u>Disease surveillance</u>: Activate "active surveillance" of smallpox in collaboration with hospitals and other major health care institutions in the state. Deploy epidemiology response teams to investigate the

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

sources of smallpox cases and to identify, vaccinate, and track all persons exposed to smallpox cases.

- e. <u>Smallpox transport system</u>: Activate the smallpox transport system for the state.
- f. <u>Smallpox education</u>: Complete the ongoing smallpox education campaign for health care workers, public health workers, public safety workers, and the general public.
- g. <u>Assurance of hospital and nursing home readiness</u>: Request that hospitals and nursing homes activate plans to limit access to patients, to heighten security, to vaccinate staff and patients, to recognize, isolate, diagnose, and report (to HEALTH) smallpox cases, and to ready such patients for transport.
- h. <u>Public information</u>: Collaborate with the mass media to keep the public fully informed about how state and federal governments are addressing the threat of smallpox.

2. MHRH

- a. Smallpox hospital: Operate a 100-bed smallpox hospital. Re-check inventory of equipment and supplies for use in the hospital.
 Backed by HEALTH, request staff from hospitals in the state.
 Activate the security plan for the smallpox hospital.
- 3. Hospitals, Nursing Homes, and Other Health Care Facilities
 - a. Access and security: Limit access to patients and heighten security.
 - b. <u>Post-outbreak vaccination</u>: Vaccinate all staff and patients.
 - c. <u>Surveillance</u>: Activate plans to recognize, isolate, and diagnose smallpox cases, and to ready such patients for transport.
 - d. <u>Staff information</u>: Maintain an active dialogue with all staff to keep them fully informed of the situation.
- 4. Public Safety Agencies (Police, Fire, EMS)
 - a. <u>Access and security</u>: Limit access to buildings and vehicles and heighten security.

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

- b. <u>Post-outbreak vaccination</u>: Participate in mass vaccination clinics under the NPS plan.
- c. <u>Staff information</u>: Maintain an active dialogue with all staff to keep them fully informed of the situation.

V. ADMINISTRATION AND LOGISTICS

All involved agencies will record any costs for rendering services to the State of Rhode Island and will provide cost documentation upon request.

VI. PLAN DEVELOPMENT AND MAINTENANCE

A. Point of Contact

1. The point of contact for any recommended changes is the Emergency Planner for the Rhode Island Department of Health. The current point of contact is:

Mr. Greg Banner 401-222-6868 gregoryb@doh.state.ri.us

2. Program and technical issues may be addressed to the Associate Director, Disease Prevention and Control, Rhode Island Department of Health. The current point of contact is:

John Fulton, Ph.D. 401-222-1172 JohnF@doh.state.ri.us

B. <u>Periodic Review</u>

This plan will be reviewed annually in a conference to which all essential parties will be invited, and in which a tabletop exercise will be conducted.

State of RI Emergency Operations Pl	lan
Appendix, Smallpox Prevention and Control Plan for Rhode Islan	nd,
To Annex,	

VII. AUTHORITY AND REFERENCES

A. <u>Authority</u>

- 1. General Laws of Rhode Island
- 2. State Emergency Operations Plan

B. <u>References</u>

1. CDC's Interim Smallpox Response Plan and Guidelines

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

ATTACHMENT 1 - PRE-EVENT VACCINATION PLAN

TABLE OF CONTENTS

- I. PURPOSE
- II. SITUATION AND ASSUMPTIONS
- III. CONCEPT OF OPERATIONS
- IV. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES
- V. ADMINISTRATION AND LOGISTICS
- VI. PLAN DEVELOPMENT AND MAINTENANCE
- VII. AUTHORITY AND REFERENCES

TABS:

- A- Vaccine Distribution Quotas
- B- Personal Screening Criteria

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

I. PURPOSE

This document provides the guidance for conducting a pre-event smallpox vaccination program in Rhode Island.

II. SITUATION AND ASSUMPTIONS

A. Situation

Refer to "Smallpox Prevention and Control Plan."

B. <u>Assumptions</u>

Refer to "Smallpox Prevention and Control Plan."

III. CONCEPT OF OPERATIONS

A. Goal

- 1. <u>Pre-Outbreak Vaccination</u>: Vaccinate health care workers, public health workers, public safety workers, and the general public in phases as licensed smallpox vaccine is made available to the state by the federal government.
 - a. <u>Phase 1</u>: Centralized vaccination of health care workers, public health workers, and public safety workers in a state-run vaccine clinic to maximize vaccine take, to minimize vaccine side effects, and to protect vaccinators from legal liability.
 - b. <u>Phase 2</u>: Decentralized vaccination of other adults and children to normalize the use of smallpox vaccine by the medical profession as an integral component of regular preventive care.

B. Execution: Pre-Outbreak Vaccination, Phase 1

1. Overview: In collaboration with health care agencies, public health agencies, and public safety agencies, the Rhode Island Department of Health (HEALTH) will vaccinate a volunteer strategic reserve of health care workers, public health workers, and public safety workers by developing a smallpox vaccine clinic for the state, receiving and securing smallpox vaccine from the federal government as it is made available, screening potential volunteer vaccinees for the contraindications of vaccination, vaccinating those who screen negative for contraindications,

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

following them for "vaccine take" and potential adverse side effects associated with vaccine use, treating adverse side effects as they may arise, and tracking the location, employment status, and contact information of vaccinees over time. Then, contingent upon federal policy governing the release and use of smallpox vaccine in the United States and in collaboration with primary health care providers throughout the state, HEALTH will assure the voluntary vaccination of the general public by training primary health care providers to vaccinate members of the general public as part of regular preventive health visits, by distributing vaccine to primary health care providers as it becomes available for use with the general public, and by working with primary health care providers to track and report all adverse vaccine side effects.

- 2. Receipt, Storage, and Deployment of Vaccine: The federal government will ship frozen smallpox vaccine to HEALTH, either directly to HEALTH's vaccine program, or indirectly through the Rhode Island Emergency Management Agency (EMA) to HEALTH's vaccine program. The freeze-dried vaccine will be stored at HEALTH and deployed to the vaccine clinic (below) as needed.
- 3. <u>Establishment and Maintenance of a Smallpox Vaccine Clinic</u>: HEALTH will establish a vaccine clinic at a location provided by the Rhode Island Department of Mental Health, Retardation, and Hospitals (MHRH). The clinic will be operated, staffed, and supplied by HEALTH.
 - a. <u>Medical Director</u>: HEALTH has retained a physician, board-certified in infectious diseases, to serve as Medical Director of the clinic. He will provide medical direction to vaccination teams and will oversee the medical care of all vaccinees.
 - b. <u>Manager</u>: HEALTH will hire a nurse manager (R.N.) to serve as manager of the day-to-day operations of the clinic, responsible for staffing, supply, patient flow, record-keeping, and patient tracking.
 - c. <u>Vaccination Teams</u>: Up to three vaccination teams of four individuals will serve in the clinic. Each team will be headed by a nurse practitioner and include a registered nurse, a certified nurse's assistant, and a clerk. Each team will vaccinate up to 25 people per day, and will monitor "vaccine take" and potential side effects in follow-up visits. All team members will be vaccinated before handling the smallpox vaccine themselves.

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

- d. <u>Hours of Operation</u>: The clinic will be open from 8:30 a.m. until
 4:30 p.m., Monday through Friday. Vaccinations will be given on Monday, Tuesday, Thursday, and Friday.
- 4. <u>Informing, Recruiting, and Selecting Potential Vaccinees</u>: Health care, public health, and public safety agencies will inform their employees about the rationale for using smallpox vaccine today, its availability, risks, and benefits, and then recruit volunteers who are willing to be vaccinated. Agencies will select potential vaccinees from volunteers according to their assigned tasks and the need for vaccinated persons in those positions.
- 5. <u>Scheduling of Potential Vaccinees</u>: Vaccine clinic staff will schedule individual appointments for potential vaccinees from lists of volunteers provided by health care, public health, and public safety agencies via HEALTH.
- 6. Requesting Informed Consent: All potential vaccinees will be informed of the risks associated with smallpox vaccine and will be asked to sign an informed consent form prior to screening or receipt of vaccine.
- 7. Screening Potential Vaccinees: All potential vaccinees will be screened for HIV and a history of atopic dermatitis. Women of childbearing age will be screened for pregnancy. Volunteers who are positive on any screen will be deferred from vaccination. HIV tests will be provided at one or more of the state's anonymous HIV counseling, testing, and referral sites. Potential vaccinees will be allowed to defer themselves from vaccination without providing a reason for doing so, to avoid revealing HIV status.
- 8. <u>Vaccination and Follow-up</u>: Volunteers who have signed informed consent forms and who have screened negative for HIV, atopic dermatitis, and pregnancy will be vaccinated at the vaccine clinic and instructed in personal hygiene, care of the lesion that forms at the vaccination site, and the signs and symptoms of adverse side effects. Vaccinees will be brought back to the vaccine clinic one or more times to monitor "vaccine take" and adverse side effects.
- 9. <u>Treatment of Adverse Side Effects</u>: Treatment for adverse side effects will be ordered by the Medical Director of the clinic, and will be provided at the clinic or elsewhere, as arranged by the Medical Director and clinic staff.
- 10. <u>Tracking Vaccinees over Time</u>: In collaboration with agencies providing volunteers to be vaccinated HEALTH will track the location, employment disposition, and contact information of vaccinees over time, and maintain

	State of RI Emergency Operations Plan
Appendix _	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

an up-to-date database with this information for use in smallpox emergencies and to provide evidence of the state's preparedness to the federal government.

11. Training:

- a. <u>Clinic staff</u>: The Medical Director of the vaccine clinic will train all clinic staff in the handling and use of smallpox vaccine, the risks and benefits of vaccination, contraindications to vaccination, screening for contraindications, and adverse side effects associated with vaccine use.
- b. <u>Vaccine teams for other agencies</u>: Properly credentialed people who have volunteered to serve on vaccine teams at their agencies and who have been vaccinated themselves will be trained in the vaccine clinic by the Medical Director of the clinic.
- c. <u>Primary care providers</u>: Primary care providers (physicians, nurse practitioners, and physician's assistants) who agree to vaccinate their patients later in the pre-event vaccination program and who have been vaccinated themselves will be trained in the vaccine clinic by the Medical Director of the clinic. Primary care providers will be trained in the handling and use of smallpox vaccine, the risks and benefits of vaccination, contraindications to vaccination, screening for contraindications, adverse side effects associated with vaccine use, and the treatment and reporting of adverse side effects.

C. Execution: Pre-Outbreak Vaccination, Phase 2

- 1. Receipt, Storage, and Deployment of Vaccine: The federal government will ship frozen smallpox vaccine to HEALTH, either directly to HEALTH's vaccine program, or indirectly through EMA to HEALTH's vaccine program. The freeze dried vaccine will be stored at HEALTH and deployed to primary care providers as requested and as available.
- 2. <u>Vaccination and Follow-up</u>: Primary care providers will be responsible for the handling and use of smallpox vaccine, screening for contraindications, adverse side effects associated with vaccine use, and treating and reporting adverse vaccine side effects.

IV. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES

A. Pre-Outbreak Vaccination, Phase 1

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

1. Governor's Office

- a. <u>Activation</u>: Invoke the provisions of Rhode Island General Laws 23-8-2 authorizing a voluntary immunization program and affording immunity from liability for those who participate in vaccinating others.
- b. <u>Coordination</u>: Assure coordination among state agencies.
- c. <u>Resources</u>: As necessary, provide or direct state resources to support this plan.
- 2. Adjutant General and Emergency Management Agency (EMA)
 - a. <u>Support</u>: Provide support as available for the operation of the vaccine clinic.

3. HEALTH

- a. <u>Leadership</u>: Serve as lead agency for the development and implementation of this plan.
- b. <u>Central vaccine clinic</u>: Organize and operate a vaccine clinic, including a physical facility, a medical director, personnel, supplies, and services (e.g., telephone). Provide appropriate guidance and approve all operational plans and procedures.
- c. <u>Vaccine storage and deployment</u>: Maintain control of all vaccine and allocate as appropriate.
- d. <u>Vaccine allocation</u>: Specify numbers and types of health care workers, public health workers, and public safety workers from health, public health, and public safety agencies who are eligible for voluntary vaccination, as vaccine is allocated to the state.
- e. Medical director of the vaccine clinic
 - i. <u>Medical leadership</u>: Direct vaccine clinic operations.
 - ii. <u>Screening criteria</u>: Develop and operationalize screening criteria for determining eligibility for vaccine.

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

- iii. Quality assurance: Assure compliance with CDC and HEALTH standards for informed consent, for screening volunteers, for the handling and use of smallpox vaccine, for record keeping, for monitoring vaccine "take" and side effects, and for the treatment of vaccine side effects.
- iv. <u>Medical management</u>: Assure 24/7 availability of skilled medical staff for the provision of medical care for vaccine side effects.
- f. Tracking volunteers: In collaboration with agencies providing volunteers to be vaccinated, track the location, employment disposition, and contact information of vaccinees over time.

 Maintain an up-to-date database with this information for use in smallpox emergencies and to provide evidence of the state's preparedness to the federal government.
- 4. <u>Agencies Providing Volunteers to be Vaccinated</u>
 - a. <u>Informing potential volunteers</u>: Health care agencies, public health agencies, and public safety agencies will inform their employees about the rationale for using smallpox vaccine today, its availability, risks, and benefits.
 - b. Recruiting potential volunteers: After properly informing their employees about the rationale for using smallpox vaccine today, its availability, risks, and benefits, health care agencies, public health agencies, and public safety agencies will recruit volunteers with selected expertise for vaccination teams, isolation teams, and infectious disease hospital teams.
 - c. <u>Scheduling volunteers for the vaccine clinic</u>: Agencies providing volunteers to be vaccinated will provide lists of volunteers to HEALTH to be scheduled for the vaccine clinic. Volunteers will be divided into groups for staggered scheduling at the convenience of the agencies.
 - d. <u>Tracking volunteers</u>: In collaboration with HEALTH, track the location, employment disposition, and contact information of vaccinees over time.
 - e. Reviewing and temporarily modifying the work assignments of some vaccinated volunteers: Agencies providing volunteers to be vaccinated will take note of the work assignments of vaccinees and

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

modify them, if necessary, to minimize the risk of secondary Vaccinia infections among other staff and patients who have contraindications to vaccination (see below).

B. <u>Pre-Outbreak Vaccination, Phase 2</u>

1. HEALTH

- a. <u>Leadership</u>: Serve as lead agency for the development and implementation of this plan.
- b. <u>Vaccine storage and deployment</u>: Maintain control of all vaccine and allocate as appropriate to vaccine providers.
- c. <u>Vaccination training</u>: Train licensed health care providers in all aspects of smallpox vaccination.
- d. <u>Tracking adverse events</u>: Assure proper tracking and reporting of adverse vaccine side effects by primary care providers.

V. ADMINISTRATION AND LOGISTICS

A. Liability Issues

1. Liability of Vaccinators

Under Rhode Island law, vaccinators are immune from liability associated with their participation in state-run vaccine clinics (except for gross negligence), if the Governor declares a vaccine emergency. (RIGL 23-8-2) The Governor has indicated that he would declare a vaccine emergency under which the smallpox vaccine clinic would operate.

2. Health Insurance Coverage for Vaccine Side Effects

Many health insurance policies may exclude from covered health care costs those related to an act of war, declared or undeclared. Since smallpox was eliminated from the human population in 1978, it may be argued that the use of smallpox vaccine in response to terrorist threats, pre- or post-outbreak, is related to an act of war, and therefore, that health care costs incurred in the treatment of vaccine side effects are excluded from coverage. However, the largest insurer in the state has committed not to invoke this clause in response to claims for health care costs incurred in the treatment of vaccine side effects for the first 1200 volunteers to be vaccinated according to this plan.

	State of RI Emergency Operations Plan
Appendix	, Smallpox Prevention and Control Plan for Rhode Island,
	To Annex,

B. Sick Leave / Loss of Work Guidance

1. Furlough

Workers who have been vaccinated with smallpox vaccine are infectious from the resulting Vaccinia lesion until the scab that forms over the lesion falls off. Experience has shown that proper care of the lesion and proper hygiene, including careful and frequent hand washing, substantially reduces the risks of developing secondary lesions and of infecting others. HEALTH, consistent with ACIP recommendations, does not recommend furlough for workers who have been vaccinated with smallpox vaccine. However, employers must be cognizant of the duties to be performed by workers in this regard, and should consider temporary modification of duties or temporary reassignment if either of two work conditions exists: 1/ There is substantial risk that the dressing at the vaccination site will be inadvertently disturbed, as by types of physical labor and types of physical human contact; 2/ There is substantial risk of close physical contact with patients who have contraindications to the receipt of vaccine, such as patients with very severe immunosupression, patients with a history of atopic dermatitis, pregnant women, and infants.

2. Sick Leave

Smallpox vaccine produces a skin lesion and viremia. As the lesion develops, the surrounding tissue becomes mildly inflamed; as it scabs over and heals, the surrounding tissue becomes very itchy. The viremia causes flu-like symptoms, beginning about four days post vaccination, and lasting a few days. The intensity of these symptoms varies among individuals. Some will feel good enough to work, while others will feel sick enough to warrant sick leave for a few days (occasionally longer). Employers must be cognizant of this variability in symptoms as they plan for the costs and contingencies of potential sick leave associated with vaccination.

Vaccination may cause side effects. Some are mild, producing symptoms of illness similar to those of uncomplicated vaccination, while others are serious (occasionally life-threatening), requiring extended sick leave. Very careful screening of potential vaccinees will avoid most, but not all, of these side effects.

3. Worker's Comp

HEALTH is working to determine if work loss attributable to voluntary vaccination with smallpox vaccine under present circumstances (pre-

State of RI Emergency Operations Pl	lan
Appendix, Smallpox Prevention and Control Plan for Rhode Islan	nd,
To Annex,	

outbreak, probability of smallpox outbreak unknown) is eligible for worker's compensation.

VI. PLAN DEVELOPMENT AND MAINTENANCE

This plan will be updated as necessary during the implementation of the plan. It will be the model used for future pre-event vaccination programs.

VII. AUTHORITY AND REFERENCES

A. Smallpox Vaccine Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2001

http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5010a1.htm

B. Smallpox, Vaccination Information Site, CDC

http://www.bt.cdc.gov/training/smallpoxvaccine/reactions/default.htm